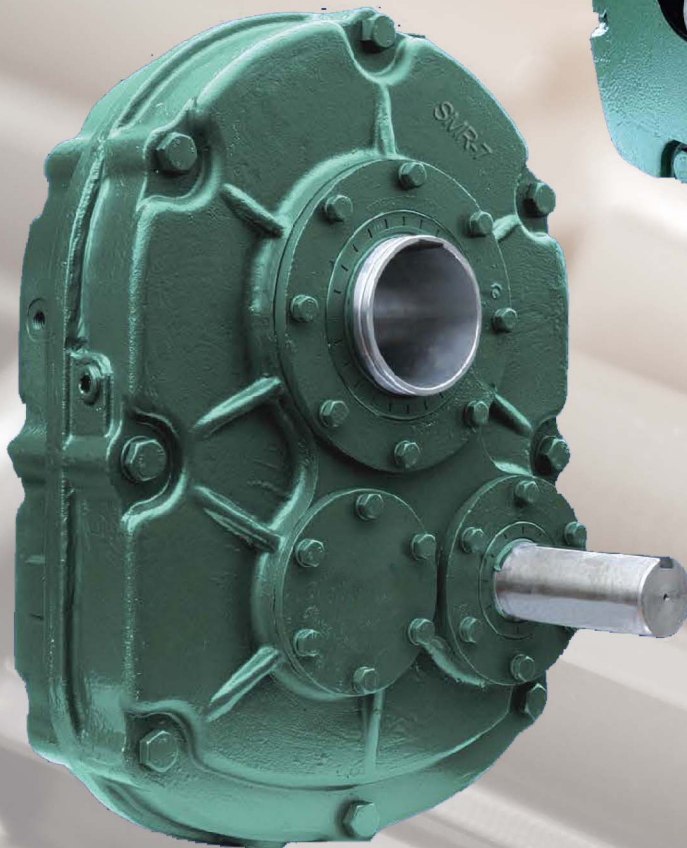




RIDUTTORI

SUPERIOR
TRANSMISSION

SMR METRIC SERIES



SMRY Inch Series

Power Rating (kW) Table for Single Reduction 5:1 Units

Output (Rpm)	SMR Size							
	B5	C5	D5	E5	F5	G5	H5	J5
100	2.68	4.20	6.62	10.29	15.12	25.2	36.2	62.2
110	2.87	4.62	7.08	11.03	16.07	27.6	38.9	67.2
120	3.13	5.04	7.46	11.76	17.01	29.9	41.4	72.5
130	3.36	5.31	7.77	12.34	17.85	31.5	43.4	76.7
140	3.56	5.54	8.11	12.71	18.59	32.6	45.2	79.2
150	3.62	5.78	8.30	13.13	19.22	33.6	47.3	81.9
160	3.73	5.88	8.51	13.55	19.95	34.7	48.3	85.1
170	3.83	5.90	8.72	13.76	20.37	35.1	49.9	88.2
180	3.94	6.09	8.93	14.18	21.00	35.7	51.5	90.3
190	4.04	6.30	9.14	14.49	21.53	36.8	52.5	93.5
200	4.20	6.49	9.45	14.91	22.05	37.8	53.6	96.6
210	4.31	6.53	9.66	15.23	22.47	38.5	54.6	98.7
220	4.41	6.72	9.87	15.75	23.10	39.3	56.2	101.9
230	4.53	6.87	10.06	16.07	23.63	40.0	57.3	104.0
240	4.66	7.04	10.29	16.49	24.26	41.1	58.8	107.1
250	4.78	7.14	10.71	16.80	25.04	42.1	60.4	109.2
260	4.89	7.35	10.92	17.01	25.41	43.1	61.3	111.3
270	5.04	7.46	11.13	17.85	26.25	44.1	63.0	113.4
280	5.20	7.56	11.55	18.38	26.78	45.2	64.1	115.5
290	5.36	7.77	11.76	18.90	27.41	46.2	65.1	116.6
300	5.46	7.98	12.08	19.43	27.83	47.4	66.2	118.7
310	5.62	8.17	12.34	19.95	28.67	48.6	67.7	122.9
320	5.78	8.30	12.60	20.27	29.61	49.4	69.4	123.9
330	5.88	8.51	13.02	20.90	30.35	50.9	70.9	125.0
340	6.09	8.72	13.44	21.11	31.08	52.3	71.6	125.5
350	6.30	8.82	13.76	21.84	31.71	53.3	73.5	126.0
360	6.41	9.03	14.18	22.26	32.60	54.6	74.6	128.1
370	6.62	9.24	14.44	22.79	33.60	55.7	75.6	129.2
380	6.72	9.45	14.70	23.10	34.49	56.7	77.7	130.2
390	6.93	9.56	15.23	23.52	35.07	58.8	79.8	131.3
400	7.14	9.66	15.65	24.57	35.91	59.9	81.9	134.2
Nm(Torque at100rpm)	256	401	632	983	1444	2407	3457	5940

Note: Backstops are not recommended for 5:1 units

Power Rating (kW) Table for Single Reduction 5:1 Units

Output(rpm)	SMR Size							
	B13/B20	C13/C20	D13/D20	E13/E20	F13/F20	G13/G20	H13/H20	J13/J20
10	0.29	0.49	0.82	1.25	1.97	3.11	4.9	7.8
12	0.36	0.58	0.96	1.48	2.45	3.71	5.9	9.2
14	0.42	0.67	1.11	1.73	2.71	4.30	6.8	10.7
16	0.47	0.77	1.27	1.97	3.09	4.89	7.7	12.1
18	0.53	0.86	1.41	2.20	3.44	5.48	8.7	13.6
20	0.59	0.96	1.58	2.43	3.82	6.08	9.5	15.1
22	0.63	1.04	1.73	2.67	4.18	6.63	10.4	16.4
24	0.69	1.13	1.86	2.89	4.55	7.22	11.3	17.9
26	0.75	1.22	2.02	3.13	4.91	7.79	12.1	19.3
28	0.81	1.32	2.18	3.36	5.27	8.35	13.1	20.6
30	0.86	1.41	2.32	3.58	5.63	8.92	13.9	22.5
32	0.92	1.50	2.47	3.81	4.98	9.49	14.8	23.6
34	0.98	1.60	2.63	4.04	6.34	10.04	15.7	25.1
38	1.10	1.79	2.91	4.48	7.05	11.12	17.4	27.6
40	1.16	1.87	3.07	4.71	7.41	11.87	18.2	29.0
42	1.20	1.96	3.19	4.92	7.75	12.39	19.3	30.1
46	1.30	2.13	3.48	5.37	8.28	13.65	21.1	32.6
50	1.42	2.30	3.78	5.81	9.07	14.60	22.8	35.0
52	1.47	2.37	4.00	6.03	9.14	15.23	23.4	35.6
54	1.52	2.47	4.14	6.23	9.42	15.86	24.4	36.3
58	1.64	2.61	4.43	6.66	10.02	16.80	25.8	38.0
62	1.76	2.77	4.71	7.23	10.61	17.96	27.5	40.2
66	1.86	2.94	5.01	7.68	11.24	19.01	29.7	42.5
70	1.96	3.07	5.13	8.11	11.76	20.16	30.6	44.7
74	2.06	3.18	5.42	8.54	12.39	21.11	32.0	47.0
78	2.15	3.32	5.70	8.97	12.92	22.26	33.6	49.2
80	2.23	3.39	5.81	9.19	13.23	22.47	34.3	50.2
85	2.34	3.58	6.14	9.71	13.97	23.31	36.2	52.8
90	2.48	3.79	6.49	10.24	14.60	24.57	37.9	55.3
95	2.61	4.00	6.81	10.50	15.44	25.83	39.0	58.0
100	2.73	4.19	7.15	11.03	16.17	27.09	40.7	60.5
105	2.85	4.41	7.48	11.55	17.01			
110	2.98	4.62	7.81					
115	3.11							
Nm(Torque at100rpm)	277	468	783	1194	1881	2970	4680	7449

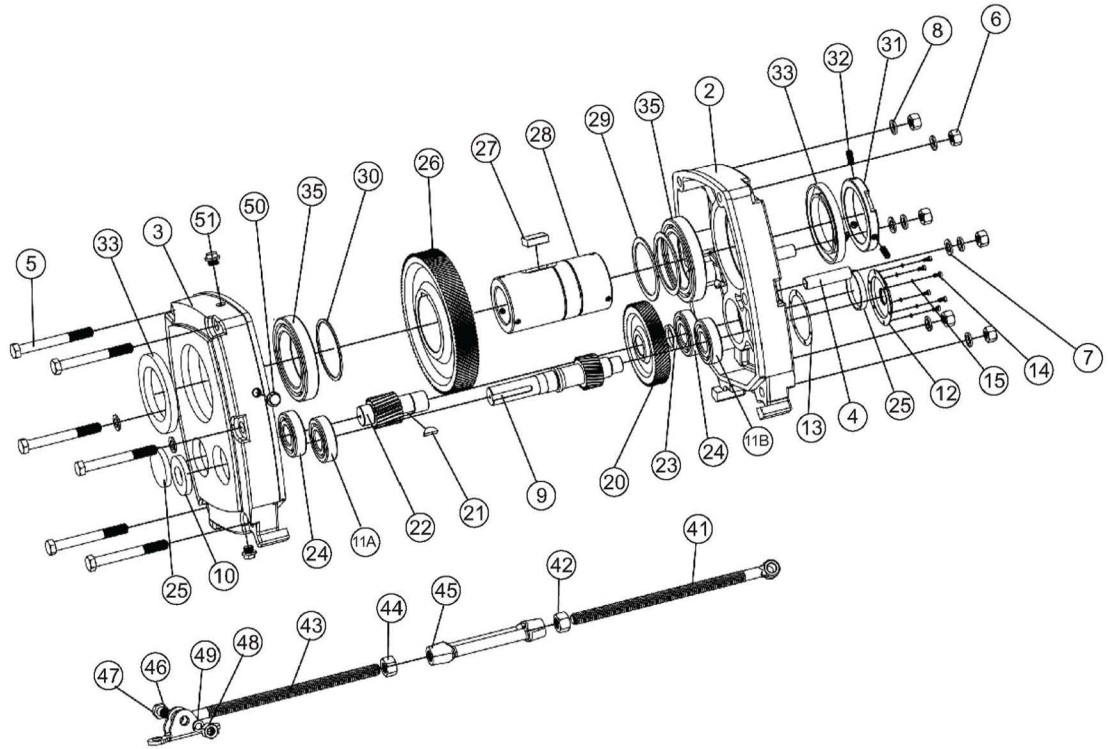
*Note: The line shows the limit of recommended output speed for reducers with 20:1 ratio.
For higher speeds use a 13:1 or 5:1 reducer.*

SMR Metric Series

When ordering parts for reducer, please specify:

1. Reducer Size Number
2. Reducer Ratio
3. Reducer Serial Number
4. Part Name
5. Code Number
6. Quantity Required

NO.	Part Name
2	Right hand gear case
3	Left hand gear case
4	Hollow dowel
5	Case bolt
6	Case nut
7	Case plain washer
8	Case lock washer
9	Input shaft & pinion
10	Input shaft oilseal
11A	Input shaft bearing(input side)
11B	Input shaft bearing(output side)
12	Backstop cover
13	Backstop cover gasket
14	Backstop cover screw
15	Backstop cover lock washer
20	1st reduction gear
21	1st reduction gear key
22	Intermediate pinion
23	Intermediate pinion distance piece
24	Intermediate pinion bearing
25	Intermediate pinion cover
26	2nd reduction gear
27	2nd reduction gear key
28	Output hub
29	Output hub circlip
30	Output hub spacer
31	Output hub collar
32	Collar screw
33	Output hub oilseal
35	Output hub bearing
41	Torque arm rod end
42	Rod end lock nut
43	Torque arm extension
44	Extension lock nut
45	Turn buckle
46	Fulcrum
47	Fulcrum bolt
48	Fulcrum nut
49	Fulcrum lock washer
50	Oil pipe plug
51	Breather plug

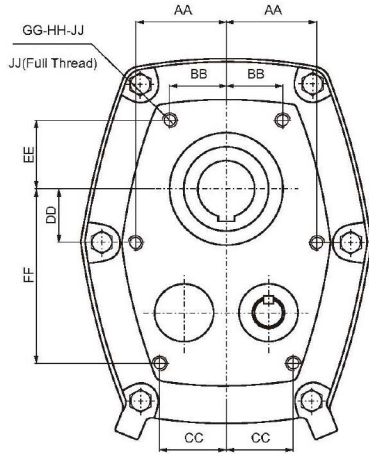


Note: Not all the reducer size look like the drawing. Some size reducer and spare parts may be different.

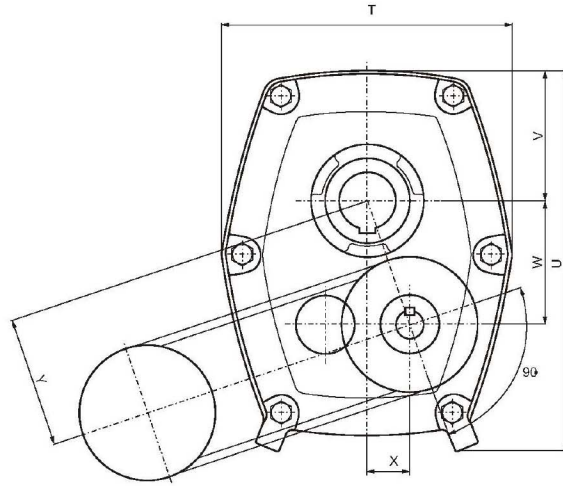
Service Factor

Types of Driven Machine	Operational Hours Per Day		
	Under 10	10 to 16	Over 16
<p>Uniform</p> <ul style="list-style-type: none"> ■ Agitators and Mixers-Liquid or Semi-Liquid ■ Conveyors and Elevators-uniformly loaded ■ Laundry Washing Machines(non-reversing) ■ Pumps-centrifugal and gear, Blowers-centrifugal ■ Bottling Machines ■ Cookers ■ Line Shafts ■ Wire Drawing Machines 	1.0	1.12	1.25
<p>Moderate Shock</p> <ul style="list-style-type: none"> ■ Agitators and Mixers-variable density ■ Conveyors-not uniformly loaded ■ Cranes, travel motion and hoisting ■ Drawbench ■ Feeders-pulsating load ■ Piston Pumps-with 3 or more cylinders ■ Pulp and Paper Making Machinery ■ Rubber Mixers and Calenders ■ Hoists ■ Kilns ■ Laundry Tumblers ■ Lifts ■ Rotary Screens ■ Textile Machinery 	1.25	1.40	1.60
<p>Heavy Shock</p> <ul style="list-style-type: none"> ■ Brick Presses ■ Briquetting Machines ■ Conveyors-reciprocating and shaker ■ Piston pumps-1 or 2 cylinders ■ Vibrating Machines ■ Crushers ■ Feeders-reciprocating ■ Hammer Mills ■ Rubber Masticators 	1.6	1.8	2.0

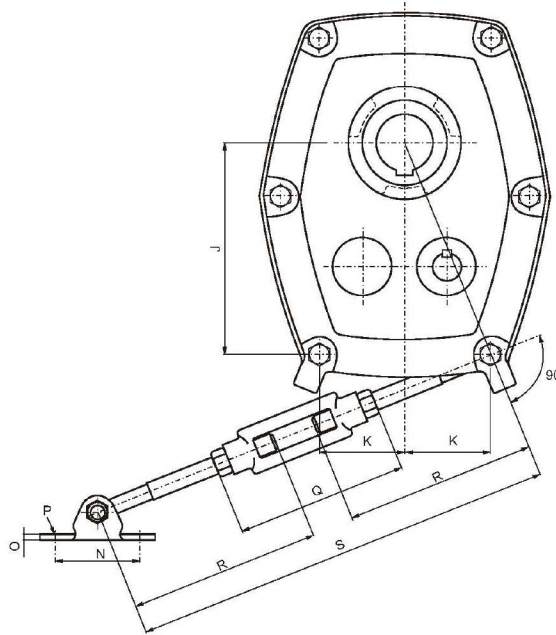
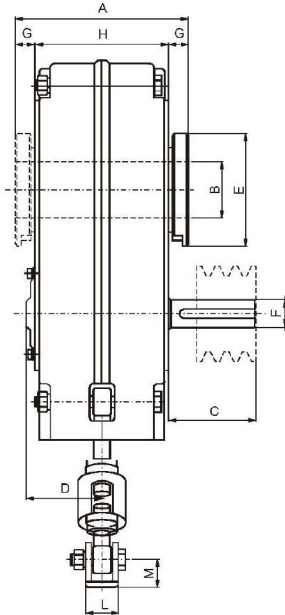
Shaft Mount Reducer Dimensions



(Flange Mounted)



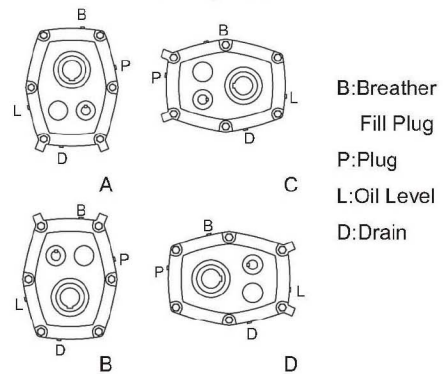
(Shaft Mounted)



Lubrications

Unit Size	Approximate Capacity-Liters							
	5:1				13:1 & 20:1			
Mounting Position	A	B	C	D	A	B	C	D
B	0.4	0.4	0.4	0.5	0.3	0.4	0.5	0.5
C	0.6	0.6	0.7	0.8	0.5	0.6	0.7	0.7
D	1.0	1.2	1.4	1.5	0.8	1.2	1.5	1.3
E	1.9	1.8	2.0	1.9	1.7	1.8	2.0	1.6
G	2.6	2.5	2.5	2.6	2.3	2.5	2.5	2.5
F	3.3	3.3	4.1	4.6	3.0	3.4	4.3	3.9
H	4.8	5.0	7.1	7.1	4.5	5.0	7.0	6.8
J	9.3	12.0	16.0	16.0	7.5	11.0	14.0	13.0

Mounting Position



Note: Below 15 rpm output speed, oil level must be adjusted to reach the highest oil level plug (P).

Shaft Mount Reducer Dimensions

Dimension		SMR Size							
		B	C	D	E	F	G	H	J
A		134	142	152	170	189	212	242	257
B	Standard	30	40	50	55	65	75	85	100
	Alternative	40	50	55	65	75	85	100	120
C		63	72	77	85	90	105	116	135
D		59	65	68	76	87	110	115	119
E		80	90	100	115	130	145	170	200
F		19	22	25	28	32	42	48	55
Input Shaft keyway		6 x 3.5 x 50	6 x 3.5 x 59	8 x 4 x 63	8 x 4 x 70	10 x 5 x 70	12 x 5 x 90	14 x 5.5 x 100	16 x 6 x 100
G		15	17	17	20	20	20	26	30
H		104	108	118	130	149	172	190	197
J		131	156	188	222	242	277	330	424
K		55	59	76	90	98	110	88	102
L		24	24	28	28	34	34	70	70
M		20	20	24	24	30	30	50	50
N		65	65	75	75	100	100	120	120
O		5	5	5	5	6	6	18	18
P		10	10	12	12	16	16	16	16
Q		200	200	216	216	216	216	222	222
R		300	300	350	350	375	375	375	375
S	Min	600	600	700	700	750	750	750	750
	Max	750	750	850	850	900	900	900	900
T		186	218	258	278	317	365	434	542
U		241	282	338	386	419	475	550	700
V		81	96	117	129	143	162	195	254
W		75	90	110	125	141	156	189	255
X		25	31	37	43	50	56	62	75
Y		79	95	116	133	150	166	200	266
AA		53	---	---	90	100	115	150	200
BB		34	40	50	57	67	74	64	74
CC		-	44	59	57	76	86	79	---
DD		33	40	48	61	64	74	81	98
EE		41	52	61	62	76	87	122	164
FF		-	132	155	188	197	224	281	330
GG		4	4	4	6	6	6	6	5
HH		M8	M10	M12	M12	M16	M16	M20	M20
JJ		15	15	17	18	19	24	29	32
Weight(kg)	5:1	15	21	30	41	53	82	133	194
	13:1-20:1	16	22	32	46	58	92	144	208
Normal Ratio	Exact Gear Ratios								
	5:1	5.05	5.05	5.047	5.047	5.047	5.047	5.047	5.047
	13:1	13.984	13.596	13.589	13.589	13.589	13.589	13.589	13.589
	20:1	20.997	20.466	20.456	20.456	20.456	20.456	20.456	20.456